Patent Claims

1. Compounds of the formula (I)

$$Ar^{1} \nearrow Ar^{2}$$

$$(CH_{2})_{n}$$

$$(1),$$

in which

n represent, 1, 2 or 2,

Ar¹ represents the radical

$$R^2$$
 R^1

and

Ar² represents the radical

in which

m represents 0, 1, 2, 3 or 4,

R¹ represents halogen, cyano, nitro, alkyl, alkoxy, halogenoalkyl, halogenoalkoxy, alkoxyalkyl, -S(O)_oR⁶ or -NR⁷R⁸,

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- R^2 and R^3 independently of one another each represent hydrogen, halogen, cyano, nitro, alkyl, alkoxy, halogenoalkyl, halogenoalkoxy, alkoxyalkyl, $-S(O)_0R^6$ or $-NR^7R^8$,
- R⁴ represents halogen, cyano, trialkylsilyl, -CO-NR¹⁰R¹¹, tetrahydropyranyl or one of the groupings below
 - (l) -X-A
 - (m) -B-Z-D
 - (n) -Y-E,
- R^5 represents hydrogen, halogen, cyano, nitro, alkyl, alkoxy, halogenoalkyl, halogenoalkoxy, alkoxyalkoxy or $-S(O)_0R^6$,
- o represents 0, 1 or 2,
- R⁶ represents alkyl or halogenoalkyl,
- R^7 and R^8 independently of one another each represent hydrogen or alkyl, or together represent alkylene,
- R¹⁰ and R¹¹ independently of one another each represent hydrogen, alkyl, halogenoalkyl or represent phenyl or phenylalkyl, each of which is optionally mono- or polysubstituted by radicals from the list W¹,
 - X represents a direct bond, oxygen, sulphur, carbonyl, carbonyloxy, oxycarbonyl, alkylene, alkenylene, alkinylene, alkyleneoxy, oxyalkylene, thioalkylene, alkylenedioxy or di-alkylsilylene,
 - A represents phenyl, naphthyl or tetrahydronaphthyl, each of which is optionally mono- or polysubstituted by radicals from the list W¹, or represents 5- to 10-membered heterocyclyl having one or more hetero atoms from the group consisting of nitrogen, oxygen and sulphur and containing 1 or 2 aromatic rings, which is optionally mono- or polysubstituted by radicals from the list W²,

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- B represents p-phenylene which is optionally mono- or disubstituted by radicals from the list W¹,
- Z represents oxygen or sulphur,

represents hydrogen, alkyl, alkenyl, alkinyl, halogenoalkyl, halogenoalkenyl, respectively optionally halogen-, alkyl-, alkenyl-, halogenoalkenyl-, phenyl-, styryl-, halogenophenyl- or halogenostyryl-substituted cycloalkyl or cycloalkylalkyl, represents respectively optionally halogen- or alkyl-substituted cycloalkenyl or cycloalkenylalkyl, represents respectively optionally nitro-, halogen-, alkyl-, alkoxy-, halogenoalkyl- or halogenoalkoxy-substituted phenylalkyl, naphthylalkyl, tetrahydronaphthylalkyl or 5- or 6-membered hetarylalkyl having 1 or 2 hetero atoms from the group consisting of nitrogen, oxygen and sulphur, represents -CO-R¹², -CO-NR¹³R¹⁴, or represents the grouping

$$-(CH_2)_p - (CR^{15}R^{16})_q - (CH_2)_r - G$$
 or

Z and D together represent optionally nitro-, halogen-, alkyl-, alkoxy-, halogenoalkyl- or halogenoalkoxy-substituted phenoxyalkyl,

Y represents a direct bond, oxygen, sulphur, carbonyl, carbonyloxy, oxycarbonyl, alkylene, alkenylene, alkinylene, alkyleneoxy, oxyalkylene, thioalkylene, alkylenedioxy or represents p-phenylene which is optionally mono- or disubstituted by radicals from the list W¹,

represents hydrogen, alkyl, alkenyl, alkinyl, halogenoalkyl, halogenoalkenyl, respectively optionally halogen-, alkyl-, alkenyl-, halogenoalkenyl-, phenyl-, styryl-, halogenophenyl- or halogenostyryl-substituted cycloalkyl, represents respectively optionally halogen- or alkyl-substituted cycloalkenyl, represents phenyl which is optionally mono- to tetrasubstituted by radicals from the list W¹ or represents 5- or 6-membered hetaryl having 1 or 2 hetero atoms from the group consisting of nitrogen, oxygen and sulphur, which is

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optionally mono- to tetrasubstituted by radicals from the list W², or represents the grouping

$$-(CH_2)_p-(CR^{15}R^{16})_q-(CH_2)_r-G,$$

- R¹² represents alkyl, alkoxy, alkenyl, alkenyloxy, respectively optionally halogen-, alkyl-, alkenyl-, halogenoalkyl- or halogenoalkenyl-substituted cycloalkyl, cycloalkyloxy or cycloalkylalkyloxy or represents respectively optionally nitro-, halogen-, alkyl-, alkoxy-, halogenoalkyl- or halogenoalkoxy-substituted phenyl or naphthyl,
- R¹³ represents hydrogen or alkyl,
- R¹⁴ represents alkyl, halogenoalkyl, respectively optionally halogen-, alkyl-, alkenyl-, halogenoalkyl- or halogenoalkenyl-substituted cycloalkyl, cycloalkylalkyl or represents respectively optionally halogen-, alkyl-, alkoxy-, halogenoalkyl- or halogenoalkoxy-substituted phenyl or phenylalkyl,
- p, q and r independently of one another each represent 0, 1, 2 or 3, their sum being smaller than 6,
- R^{15} and R^{16} independently of one another each represent hydrogen or alkyl,
- G represents cyano, represents a 5- or 6-membered heterocycle having
 1 to 3 identical or different hetero atoms from the group consisting
 of nitrogen, oxygen and sulphur, which is optionally substituted by
 halogen, alkyl or halogenoalkyl and, at the attachment point,
 optionally by the radical R¹⁷, or represents one of the groupings
 below

25 (a)
$$-CO-R^{17}$$

(b) $-CO-OR^{18}$
(c) $-CO-NR^{19}R^{20}$
(d) $-CS-NR^{19}R^{20}$
(e) $-C=N-R^{21}$

(k)
$$-C = N - R^{23}$$

R¹⁷ represents hydrogen, alkyl, alkenyl, halogenoalkyl, halogenoalkenyl, optionally halogen-, alkyl- or halogenoalkyl-substituted cycloalkyl, or represents phenyl which is optionally mono- to pentasubstituted by alkylcarbonylamino, alkylcarbonylalkylamino and/or radicals from the list W³,

R¹⁸ represents hydrogen, alkyl, alkenyl, halogenoalkyl, halogenoalkenyl, respectively optionally halogen-, alkyl- or halogenoalkyl-substituted cycloalkyl or cycloalkylalkyl or represents arylalkyl which is optionally mono- to pentasubstituted by radicals from the list W³,

R¹⁹ and R²⁰ independently of one another each represent hydrogen, alkyl, alkenyl, halogenoalkyl, halogenoalkenyl, alkoxy, respectively optionally halogen-, alkyl- or halogenoalkyl-substituted cycloalkyl or cycloalkylalkyl, represent aryl or arylalkyl, each of which is optionally mono- to pentasubstituted by radicals from the list W³, represent -OR¹⁸ or -NR¹⁷R¹⁸ or together represent an alkylene chain having 2 to 6 members in which one methylene group is optionally replaced by oxygen,

 R^{21} represents -OR¹⁸, -NR¹⁷R¹⁸ or -N(R¹⁷)-COOR¹⁸,

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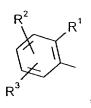
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R²², R²³ and R²⁴ independently of one another each represent alkyl,

- W¹ represents hydrogen, halogen, cyano, formyl, nitro, alkyl, trialkylsilyl, alkoxy, halogenoalkyl, halogenoalkoxy, halogenoalkenyloxy, alkylcarbonyl, alkoxycarbonyl, pentafluorothio or -S(O)₀R⁶,
- W² represents halogen, cyano, formyl, nitro, alkyl, trialkylsilyl, alkoxy, halogenoalkyl, halogenoalkoxy, alkylcarbonyl, alkoxycarbonyl, pentafluorothio, -S(O)_oR⁶ or -C(R¹⁷)=N-R²¹,
 - W³ represents halogen, cyano, nitro, alkyl, alkoxy, halogenoalkyl, halogenoalkoxy, dialkylamino -S(O)₀R⁶, -COOR²⁵ or -CONR²⁶R²⁷,
- 10 R²⁵ represents hydrogen, alkyl, halogenoalkyl, optionally halogen-, alkyl- or halogenoalkyl-substituted cycloalkyl or represents phenyl which is optionally mono- to pentasubstituted by radicals from the list W⁴,
 - R²⁶ and R²⁷ independently of one another each represent hydrogen, alkyl, alkenyl, halogenoalkyl, halogenoalkenyl, alkoxy, respectively optionally halogen-, alkyl- or halogenoalkyl-substituted cycloalkyl or cycloalkylalkyl or represent aryl or arylalkyl, each of which is optionally mono- to pentasubstituted by radicals from the list W⁴, represent -OR²² or -NR²³R²⁴ or together represent an alkylene chain having 2 to 6 members in which one methylene group is optionally replaced by oxygen, and
 - W⁴ represents halogen, cyano, nitro, alkyl, alkoxy, halogenoalkyl, halogenoalkoxy, dialkylamino, alkoxycarbonyl, dialkylaminocarbonyl or -S(O)₀R⁶
- 25 2. Compounds of the formula (I) according to Claim 1 in which
 - n represents 1, 2 or 3,
 - Ar¹ represents the radical



Ar² represents the radical

m represents 0, 1, 2 or 3,

R¹ represents halogen, cyano, nitro, C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, C_1 - C_6 -halogenoalkyl or C_1 - C_6 -halogenoalkoxy, represents C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, $-S(O)_o R^6$ or $-NR^7 R^8$,

 R^2 and R^3 independently of one another each represent hydrogen, halogen, cyano, nitro, C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, C_1 - C_6 -halogenoalkyl or C_1 - C_6 -halogenoalkoxy, represent C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, $-S(O)_oR^6$ or $-NR^7R^8$,

 R^4 represents a substituent in meta- or paraposition from the group consisting of halogen, cyano, tri- $(C_1-C_6$ -alkyl)-silyl, -CO-NR¹⁰R¹¹, tetrahydropyranyl or one of the groupings below

(1) -X-A

(m) -B-Z-D

(n) -Y-E,

R⁵ represents hydrogen, halogen, cyano, nitro, C_1 - C_{16} -alkyl, C_1 - C_{16} -alkoxy, C_1 - C_6 -halogenoalkyl, C_1 - C_6 -halogenoalkoxy, C_1 - C_8 -alkoxy or -S(O)₀R⁶,

o represents 0, 1 or 2,

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R⁶ represents optionally fluorine- or chlorine-substituted C₁-C₆-alkyl,

 R^7 and R^8 independently of one another each represent hydrogen or C_1 - C_6 -alkyl, such as, for example, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl or together represent C_2 - C_5 -alkylene, such as, for example, -(CH_2)₄- or -(CH_2)₅-,

 R^{10} and R^{11} independently of one another each represent hydrogen, C_1 - C_6 -alkyl, C_1 - C_6 -halogenoalkyl or represent phenyl or phenyl- C_1 - C_4 -alkyl, each of which is optionally mono- to trisubstituted by radicals from the list W^1 ,

X represents a direct bond, oxygen, sulphur, carbonyl, carbonyloxy, oxycarbonyl, C_1 - C_4 -alkylene, C_2 - C_4 -alkenylene, C_2 - C_4 -alkinylene, C_1 - C_4 -alkyleneoxy, C_1 - C_4 -oxyalkylene, C_1 - C_4 -thioalkylene, C_1 - C_4 -alkylenedioxy or di- C_1 - C_4 -alkylsilylene,

A represents phenyl, naphthyl or tetrahydronaphthyl, each of which is optionally mono- to tetrasubstituted by radicals from the list W¹, or represents 5- to 10-membered heterocyclyl having 1 to 4 hetero atoms, including 0 to 4 nitrogen atoms, 0 to 2 oxygen atoms and 0 to 2 sulphur atoms, and containing 1 or 2 aromatic rings, which is in each case optionally mono- to tetrasubstituted by radicals from the list W²,

B represents p-phenylene which is optionally mono- or disubstituted by radicals from the list W^1 ,

Z represents oxygen or sulphur,

phenyl-, styryl-, halogenophenyl- or halogenostyryl-substituted C_3 - C_8 -cycloalkyl or C_3 - C_8 -cycloalkyl or C_3 - C_8 -alkyl-, C_2 - C_4 -alkyl-, C_3 - C_8 -cycloalkyl or C_3 - C_8 -cycloalkyl or C_3 - C_8 -cycloalkyl-substituted C_5 - C_8 -cycloalkyl or C_3 - C_8 -cycloalkyl-substituted C_5 - C_8 -

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cycloalkenyl or C_5 - C_8 -cycloalkenyl- C_1 - C_4 -alkyl, represents respectively optionally nitro-, halogen-, C_1 - C_6 -alkyl-, C_1 - C_6 -alkoxy-, C_1 - C_6 -halogenoalkyl- or C_1 - C_6 -halogenoalkoxy-substituted phenyl- C_1 - C_6 -alkyl, naphthyl- C_1 - C_6 -alkyl, tetrahydronaphthyl- C_1 - C_6 -alkyl or 5- or 6-membered hetaryl- C_1 - C_6 -alkyl having 1 or 2 hetero atoms from the group consisting of nitrogen, oxygen and sulphur, represents -CO- R^{12} , -CO- $NR^{13}R^{14}$, or represents the grouping

$$-(CH_2)_p - (CR^{15}R^{16})_q - (CH_2)_r - G$$
 or

Z and D together represent optionally nitro-, halogen-, C_1 - C_6 -alkyl-, C_1 - C_6 -alkoxy, C_1 - C_6 -halogenoalkyl- or C_1 - C_6 -halogenalkoxy-substituted phenoxy- C_1 - C_4 -alkyl,

Y represents a direct bond, oxygen, sulphur, carbonyl, carbonyloxy, oxycarbonyl, C_1 - C_4 -alkylene, C_2 - C_4 -alkenylene, C_2 - C_4 -alkylene, C_1 - C_4 -alkyleneoxy, C_1 - C_4 -oxyalkylene, C_1 - C_4 -thioalkylene, C_1 - C_4 -alkylenedioxy or represents p-phenylene which is optionally monoor disubstituted by radicals from the list W^1 ,

represents hydrogen, C₁-C₁₆-alkyl, C₂-C₁₆-alkenyl, C₂-C₆-alkinyl, C₁-C₁₆-halogenoalkyl, C₂-C₁₆-halogenoalkenyl, optionally halogen, C₁-C₄-alkyl-, C₂-C₄-alkenyl-, C₂-C₄-halogenoalkenyl-, phenyl-, styryl-, halogenophenyl- or halogenostyryl-substituted C₃-C₈-cycloalkyl, represents optionally halogen- or C₁-C₄-alkyl-substituted C₅-C₈-cycloalkenyl, represents phenyl which is optionally mono- to tetrasubstituted by radicals from the list W¹ or represents 5- or 6-membered hetaryl having 1 or 2 hetero atoms from the group consisting of nitrogen, oxygen and sulphur, which is optionally mono- to tetrasubstituted by radicals from the list W², or represents the grouping

$$-(CH_2)_p - (CR^{15}R^{16})_q - (CH_2)_r - G,$$

R¹² represents C_1 - C_{12} -alkyl, C_1 - C_{12} -alkoxy, C_2 - C_{12} -alkenyl, C_2 - C_{12} -alkenyloxy, respectively optionally halogen-, C_1 - C_4 -alkyl-, C_2 - C_4 -

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alkenyl-, C_1 - C_4 -halogenoalkyl- or C_2 - C_4 -halogenoalkenyl-substituted C_3 - C_8 -cycloalkyl, C_3 - C_8 -cycloalkyloxy or C_3 - C_8 -cycloalkyl- C_1 - C_6 -alkyloxy or represents phenyl or naphthyl, each of which is optionally mono- to tetrasubstituted by nitro, halogen, C_1 - C_{12} -alkyl, C_1 - C_{12} -halogenoalkyl or C_1 - C_{12} -halogenoalkoxy,

- R^{13} represents hydrogen or C_1 - C_{12} -alkyl,
- R¹⁴ represents C_1 - C_{12} -alkyl, C_1 - C_{12} -halogenoalkyl, respectively optionally halogen-, C_1 - C_4 -alkyl-, C_2 - C_4 -alkenyl-, C_1 - C_4 -halogenoalkyl- or C_2 - C_4 -halogenoalkenyl-substituted C_3 - C_8 -cycloalkyl or C_3 - C_8 -cycloalkyl- C_1 - C_6 -alkyl, or represents phenyl or phenyl- C_1 - C_6 -alkyl which is in each case optionally mono- to tetrasubstituted by halogen, C_1 - C_{12} -alkyl, C_1 - C_{12} -alkoxy, C_1 - C_{12} -halogenoalkyl or C_1 - C_{12} -halogenoalkoxy,
- p, q and r independently of one another each represent 0, 1, 2 or 3, their sum being smaller than 6,
- R^{15} and R^{16} independently of one another each represent hydrogen or $C_1\text{-}C_4\text{-alkyl}$,
- represents cyano, represents a 5- or 6-membered heterocycle having 1 to 3 identical or different hetero atoms from the group consisting of nitrogen, oxygen and sulphur, which is optionally mono- to trisubstituted by halogen, C₁-C₄-alkyl or C₁-C₄-halogenoalkyl and, at the attachment point, optionally by the radical R¹⁷, or represents one of the groupings below:

25 (a)
$$-CO - R^{17}$$

(b) $-CO - OR^{18}$
(c) $-CO - NR^{19}R^{20}$
(d) $-CS - NR^{19}R^{20}$
(e) $-C = N - R^{21}$
 R^{17}
 OR^{22}
(f) $-C - OR^{22}$

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(g)
$$-C > SR^{22}$$

 R^{17}
(h) $-C > OR^{22}$
 R^{17}
(i) $-C > OR^{22}$
 R^{17}
(i) $-C > SR^{22}$
 R^{17}
(j) $-C = N - R^{23}$
 OR^{24}
 OR^{24}

(k)

R¹⁷ represents hydrogen, C_1 - C_6 -alkyl, C_2 - C_6 -alkenyl, C_1 - C_4 -halogenoalkyl, C_2 - C_6 -halogenoalkenyl, optionally halogen-, C_1 - C_4 -alkyl- or C_1 - C_4 -halogenoalkyl-substituted C_3 - C_6 -cycloalkyl, or represents phenyl which is optionally mono- to pentasubstituted by C_1 - C_4 -alkylcarbonylamino, C_1 - C_4 -alkylcarbonyl- C_1 - C_4 -alkylamino and/or radicals from the list W^3 ,

R¹⁸ represents hydrogen, C_1 - C_4 -alkyl, C_2 - C_6 -alkenyl, C_1 - C_4 -halogenoalkyl, C_2 - C_6 -halogenoalkenyl, respectively optionally halogen-, C_1 - C_4 -alkyl- or C_1 - C_4 -halogenoalkyl-substituted C_3 - C_6 -cycloalkyl, or C_3 - C_6 -cycloalkyl- C_1 - C_4 -alkyl or represents C_6 - C_{10} -aryl- C_1 - C_4 -alkyl which is optionally mono- to tetrasubstituted by radicals from the list W^3 ,

 R^{19} and R^{20} independently of one another each represent hydrogen, $C_1\text{-}C_4\text{-}$ alkyl, $C_3\text{-}C_6\text{-}$ alkenyl, $C_1\text{-}C_4\text{-}$ halogenoalkyl, $C_3\text{-}C_6\text{-}$ halogenoalkenyl, $C_1\text{-}C_4\text{-}$ alkoxy, respectively optionally halogen-, $C_1\text{-}C_4\text{-}$ alkyl- or $C_1\text{-}C_4\text{-}$ halogenoalkyl-substituted $C_3\text{-}C_6\text{-}$ cycloalkyl or $C_3\text{-}C_6\text{-}$ cycloalkyl- $C_1\text{-}C_4\text{-}$ alkyl, represent phenyl or phenyl- $C_1\text{-}C_4\text{-}$ alkyl, each of which is optionally mono- to pentasubstituted by radicals from the list W^3 , represent -OR 18 or -NR 17 R 18 or together represent an alkylene chain having 4 to 6 members in which one methylene group is optionally replaced by oxygen,

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- R^{21} represents $-OR^{18}$, $-NR^{17}R^{18}$ or $-N(R^{17})-COOR^{18}$,
- R^{22} , R^{23} and R^{24} independently of one another each represent C_1 - C_6 -alkyl,
- W¹ represents hydrogen, halogen, cyano, formyl, nitro, C_1 - C_6 -alkyl, tri- C_1 - C_4 -alkylsilyl, C_1 - C_{16} -alkoxy, C_1 - C_6 -halogenoalkyl, C_1 - C_6 -halogenoalkoxy, C_2 - C_6 -halogenoalkenyloxy, C_1 - C_6 -alkylcarbonyl, C_1 - C_{16} -alkoxycarbonyl, pentafluorothio or -S(O)₀R⁶,
- W² represents halogen, cyano, formyl, nitro, C_1 - C_6 -alkyl, tri- C_1 - C_4 -alkylsilyl, C_1 - C_{16} -alkoxy, C_1 - C_6 -halogenoalkyl, C_1 - C_6 -halogenoalkoxy, C_1 - C_6 -alkylcarbonyl, C_1 - C_{16} -alkoxycarbonyl, pentafluorothio, -S(O)₀R⁶ or -C(R¹⁷)=N-R²¹,
- W³ represents halogen, cyano, nitro, C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy, C_1 - C_4 -halogenoalkyl, C_1 - C_4 -halogenoalkoxy, di- C_1 - C_4 -alkylamino, -S(O)₀R⁶, -COOR²⁵ or -CONR²⁶R²⁷,
- $\rm R^{25}$ represents hydrogen, $\rm C_1\text{-}C_4\text{-}alkyl,~C_1\text{-}C_4\text{-}halogenoalkyl,}$ optionally halogen-, $\rm C_1\text{-}C_4\text{-}alkyl\text{-}}$ or $\rm C_1\text{-}C_4\text{-}halogenoalkyl\text{-}substituted}$ $\rm C_3\text{-}C_7\text{-}$ cycloalkyl or represents phenyl which is optionally mono- to pentasubstituted by radicals from the list $\rm W^4$,
- R^{26} and R^{27} independently of one another each represent hydrogen, $C_1\text{-}C_4$ -alkyl, $C_3\text{-}C_6\text{-alkenyl}$, $C_1\text{-}C_4\text{-halogenoalkyl}$, $C_3\text{-}C_6\text{-halogenoalkenyl}$, $C_1\text{-}C_4\text{-alkoxy}$, respectively optionally halogen-, $C_1\text{-}C_4\text{-alkyl}$ or $C_1\text{-}C_4\text{-halogenoalkyl-substituted}$ $C_3\text{-}C_6\text{-cycloalkyl}$ or $C_3\text{-}C_6\text{-cycloalkyl-}$ or phenyl- $C_1\text{-}C_4\text{-alkyl}$, each of which is optionally mono- to pentasubstituted by radicals from the list W^4 , represent -OR 22 or -NR 23 R 24 , or together represent an alkylene chain having 4 to 6 members in which one methylene group is optionally replaced by oxygen, and
- W⁴ represents halogen, cyano, nitro, C₁-C₆-alkyl, C₁-C₆-alkoxy, C₁-C₆-halogenoalkyl, C₁-C₆-halogenoalkoxy, di-C₁-C₄-alkylamino, C₁-C₆-alkoxycarbonyl, di-C₁-C₆-alkylaminocarbonyl or -S(O)_oR⁶.

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- 3. Compounds of the formula (I) according to Claim 1 in which
 - n represents 1 or 2,
 - Ar¹ represents the radical

$$R^2$$
 R^3

Ar² represents the radical

- m represents 0, 1 or 2,
- R¹ represents fluorine, chlorine, bromine, C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, respectively fluorine- or chlorine-substituted C_1 - C_6 -alkyl or C_1 - C_6 -alkoxy, represents C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl or -S(O)₀R⁶,

 R^2 and R^3 independently of one another each represent hydrogen, fluorine, chlorine, bromine, iodine, $C_1\text{-}C_6\text{-alkyl},\ C_1\text{-}C_6\text{-alkoxy},\ respectively}$ fluorine- or chlorine-substituted $C_1\text{-}C_6\text{-alkyl}$ or $C_1\text{-}C_6\text{-alkoxy},\ represent\ C_1\text{-}C_6\text{-alkoxy-}C_1\text{-}C_6\text{-alkyl}$ or $-S(O)_oR^6,$

15 R⁴ represents a substituent in meta- or paraposition from the group consisting of fluorine, chlorine, bromine, iodine, cyano, tri-(C₁-C₄-alkyl)-silyl, -CO-NR¹⁰R¹¹, tetrahydropyranyl or one of the groupings below

- (l) -X-A
- (m) -B-Z-D

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(n) -Y-E,

- represents hydrogen, fluorine, chlorine, bromine, iodine, cyano, nitro, C₁-C₁₆-alkyl, C₁-C₁₆-alkoxy, respectively fluorine- or chlorine-substituted C₁-C₆-alkyl or C₁-C₆-alkoxy, represents C₁-C₈-alkoxy-C₁-C₈-alkoxy, or -S(O)₀R⁶,
- o represents 0, 1 or 2,
- R⁶ represents C₁-C₄-alkyl or respectively fluorine- or chlorine-substituted methyl or ethyl,
- R^{10} and R^{11} independently of one another each represent hydrogen, C_1 - C_6 -alkyl, fluorine- or chlorine-substituted C_1 - C_6 -alkyl or represent phenyl or benzyl, each of which is optionally mono- or disubstituted by radicals from the list W^1 ,
- X represents a direct bond, oxygen, sulphur, carbonyl, carbonyloxy, oxycarbonyl, C_1 - C_4 -alkylene, C_2 - C_4 -alkenylene, C_1 - C_4 -alkyleneoxy, C_1 - C_4 -oxyalkylene, C_1 - C_4 -thioalkylene, C_1 - C_4 -alkylenedioxy or di- C_1 - C_4 -alkylsilylene,
- A represents phenyl, naphthyl or tetrahydronaphthyl, each of which is optionally mono- to trisubstituted by radicals from the list W¹, or represents 5- to 10-membered heterocyclyl having 1 to 4 hetero atoms, which includes 0 to 4 nitrogen atoms, 0 to 2 oxygen atoms and 0 to 2 sulphur atoms, and containing 1 or 2 aromatic rings, which is in each case optionally mono- to trisubstituted by radicals from the list W²,
- B represents p-phenylene which is optionally mono- or disubstituted by radicals from the list W¹,
- Z represents oxygen or sulphur,

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D represents hydrogen, C₁-C₁₆-alkyl, C₂-C₁₆-alkenyl, C₂-C₆-alkinyl, respectively fluorine- or chlorine-substituted C₁-C₄-alkyl or C₂-C₄alkenyl, represents C_3 - C_6 -cycloalkyl or C_3 - C_6 -cycloalkyl- C_1 - C_4 alkyl, each of which is optionally substituted by fluorine, chlorine, C_1 - C_4 -alkyl, C_2 - C_4 -alkenyl, fluorine- or chlorine-substituted C₂-C₄-alkenyl, phenyl, styryl, respectively fluorine-, chlorine- or bromine-substituted phenyl or styryl, represents respectively optionally fluorine-, chlorine-, bromine- or C1-C4-alkylsubstituted C_5 - C_6 -cycloalkenyl or C_5 - C_6 -cycloalkenyl- C_1 - C_4 -alkyl, represents phenyl- C_1 - C_4 -alkyl, naphthyl- C_1 - C_4 -alkyl, tetrahydro $naphthyl-C_1-C_6-alkyl \ \ \, \text{or} \ \ \, \text{5- or} \ \ \, \text{6-membered hetaryl-}C_1-C_4-alkyl$ having 1 or 2 hetero atoms from the group consisting of nitrogen, oxygen and sulphur, each of these radicals being optionally substituted by nitro, fluorine, chlorine, bromine, C₁-C₆-alkyl, C₁-C₆alkoxy, respectively fluorine- or chlorine-substituted C1-C4-alkyl or C_1 - C_4 -alkoxy, represents -CO- R^{12} , -CO- $NR^{13}R^{14}$, or the grouping

$$-(CH_2)_p - (CR^{15}R^{16})_q - (CH_2)_r - G$$
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Z and D together represent phenoxy- C_1 - C_3 -alkyl which is optionally substituted by nitro, fluorine, chlorine, bromine, C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy or respectively fluorine- or chlorine-substituted C_1 - C_4 -alkyl or C_1 - C_4 -alkoxy,

Y represents a direct bond, oxygen, sulphur, carbonyl, carbonyloxy, oxycarbonyl, C_1 - C_4 -alkylene, C_2 - C_4 -alkenylene, C_2 - C_4 -alkylene, C_1 - C_4 -alkyleneoxy, C_1 - C_4 -oxyalkylene, C_1 - C_4 -thioalkylene, C_1 - C_4 -alkylenedioxy or represents p-phenylene which is optionally monoor disubstituted by radicals from the list W^1 ,

represents hydrogen, C_1 - C_{16} -alkyl, C_2 - C_{16} -alkenyl, C_2 - C_6 -alkinyl, respectively fluorine- or chlorine-substituted C_1 - C_4 -alkyl or C_2 - C_4 -alkenyl, represents C_3 - C_6 -cycloalkyl which is optionally substituted by fluorine, chlorine, bromine, C_1 - C_4 -alkyl, C_2 - C_4 -alkenyl, fluorine- or chlorine-substituted C_2 - C_4 -alkenyl, phenyl, styryl or respectively fluorine-, chlorine- or bromine-substituted phenyl or styryl,

represents optionally fluorine-, chlorine-, bromine- or C_1 - C_4 -alkyl-substituted C_5 - C_6 -cycloalkenyl, represents phenyl which is optionally mono- to trisubstituted by radicals from the list W^1 or represents 5- or 6-membered hetaryl having 1 or 2 hetero atoms from the group consisting of nitrogen, oxygen and sulphur, which is optionally mono- or disubstituted by radicals from the list W^2 , or represents the grouping

$$-(CH_2)_p-(CR^{15}R^{16})_q-(CH_2)_r-G,$$

R¹² represents C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, C_2 - C_6 -alkenyl, C_2 - C_6 -alkenyloxy, represents C_3 - C_6 -cycloalkyl, C_3 - C_6 -cycloalkyloxy or C_3 - C_6 -cycloalkyl- C_1 - C_2 -alkyloxy, each of which is optionally substituted by fluorine, chlorine, C_1 - C_3 -alkyl, or respectively fluorine- or chlorine-substituted C_1 - C_2 -alkyl or C_2 - C_3 -alkenyl, or represents phenyl which is optionally mono- or disubstituted by fluorine, chlorine, bromine, iodine, C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy or respectively fluorine- or chlorine-substituted, C_1 - C_3 -alkyl or C_1 - C_4 -alkoxy,

- R¹³ represents hydrogen or C₁-C₄-alkyl,
- R¹⁴ represents C₁-C₄-alkyl, or represents phenyl or benzyl, each of which is optionally mono- or disubstituted by fluorine, chlorine, bromine, C₁-C₄-alkyl or respectively fluorine- or chlorine-substituted C₁-C₄-alkyl or C₁-C₄-alkoxy,
- p, q and r independently of one another each represent 0, 1, 2 or 3, their sum being smaller than 6,
- R^{15} and R^{16} independently of one another each represent hydrogen or $C_1\text{-}C_4\text{-alkyl}$,
- G represents cyano, represents a 5- or 6-membered heterocycle having I to 3 identical or different hetero atoms from the group consisting of nitrogen, oxygen and sulphur, which is optionally mono- to trisubstituted by fluorine, chlorine, bromine, C₁-C₄-alkyl or fluorine-

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or chorine-substituted C₁-C₄-alkyl and, at the attachment point, optionally by the radical R¹⁷, or represents one of the groupings below:

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(a)
$$-CO-R^{17}$$

(b) $-CO-OR^{18}$
(c) $-CO-NR^{19}R^{20}$
(d) $-CS-NR^{19}R^{20}$
(e) $-CS-NR^{21}$

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(f)
$$-C - OR^{22}$$

 R^{17}
(g) $-C - SR^{22}$
 R^{21}

(h)

(h)
$$-C - OR^{22}$$

(i)

(i)
$$-C SR^{22}$$
 R^{17} R^{23}

(j)

(k)

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 R^{17} represents hydrogen, C₁-C₆-alkyl, C₂-C₆-alkenyl, respectively fluorine- or chlorine-substituted C₁-C₄-alkyl or C₂-C₆-alkenyl, represents C₃-C₆-cycloalkyl which is optionally substituted by fluorine, chlorine, C1-C4-alkyl or fluorine- or chlorine-substituted C₁-C₄-alkyl, or represents phenyl which is optionally mono- to trisubstituted by C₁-C₄-alkylcarbonylamino, C₁-C₄-alkylcarbonyl- C_1 - C_4 -alkylamino and/or radicals from the list W^3 ,

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 R^{18} represents hydrogen, C₁-C₄-alkyl, C₃-C₆-alkenyl, respectively fluorine- or chlorine-substituted C_1 - C_4 -alkyl or C_3 - C_6 -alkenyl, represents C_3 - C_6 -cycloalkyl or C_3 - C_6 -cycloalkyl- C_1 - C_4 -alkyl, each of which is optionally substituted by fluorine, chlorine, C1-C4-alkyl

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or fluorine- or chlorine-substituted C_1 - C_4 -alkyl, or represents phenyl- C_1 - C_4 -alkyl or naphthyl- C_1 - C_4 -alkyl, each of which is optionally mono- to trisubstituted by radicals from the list W^3 ,

- R^{19} and R^{20} independently of one another each represent hydrogen, C_1 - C_4 -alkyl, C_3 - C_6 -alkenyl, respectively fluorine- or chlorine-substituted C_1 - C_4 -alkyl or C_3 - C_6 -alkenyl, represent C_1 - C_4 -alkyl, each of which is optionally substituted by fluorine, chlorine, C_1 - C_4 -alkyl or fluorine-or chlorine-substituted C_1 - C_4 -alkyl, represent phenyl or phenyl- C_1 - C_4 -alkyl, each of which is optionally mono- to trisubstituted by radicals from the list W^3 , represent - OR^{18} or - $NR^{17}R^{18}$ or together represent - $(CH_2)_5$ -, - $(CH_2)_6$ or - $(CH_2)_2$ -O- $(CH_2)_2$ -,
- R^{21} represents -OR¹⁸, -NR¹⁷R¹⁸ or -N(R¹⁷)-COOR¹⁸,
- R^{22} , R^{23} and R^{24} independently of one another each represent C_1 - C_4 -alkyl,
- W¹ represents hydrogen, fluorine, chlorine, bromine, iodine, cyano, formyl, nitro, C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy, respectively fluorine- or chlorine-substituted C_1 - C_4 -alkyl or C_1 - C_4 -alkoxy, represents C_1 - C_4 -alkylcarbonyl, C_1 - C_4 -alkoxycarbonyl or -S(O)₀R⁶,
- W² represents fluorine, chlorine, bromine, cyano, formyl, nitro, C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy, respectively fluorine- or chlorine-substituted C_1 - C_4 -alkyl or C_1 - C_4 -alkoxy, represents C_1 - C_4 -alkylcarbonyl, C_1 - C_4 -alkoxycarbonyl, -S(O)_oR⁶ or -C(R¹⁷)=N-R²¹,
- W³ represents fluorine, chlorine, bromine, cyano, nitro, C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy, respectively fluorine- or chlorine-substituted C_1 - C_4 -alkyl or C_1 - C_4 -alkoxy, represents di- C_1 - C_4 -alkylamino, -S(O)_oR⁶, -COOR²⁵ or -CONR²⁶R²⁷,
- R^{25} represents hydrogen, C_1 - C_4 -alkyl, fluorine- or chlorine-substituted C_1 - C_4 -alkyl, represents C_3 - C_6 -cycloalkyl which is optionally substituted by fluorine, chlorine, C_1 - C_4 -alkyl or fluorine- or

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chlorine-substituted C_1 - C_4 -alkyl, or represents phenyl which is optionally mono- to trisubstituted by radicals from the list W^4 ,

 R^{26} and R^{27} independently of one another each represent hydrogen, C_1 - C_4 -alkyl, C_3 - C_6 -alkenyl, respectively fluorine- or chlorine-substituted C_1 - C_4 -alkyl or C_3 - C_6 -alkenyl, represent C_1 - C_4 -alkoxy, represent C_3 - C_6 -cycloalkyl or C_3 - C_6 -cycloalkyl- C_1 - C_4 -alkyl, each of which is optionally substituted by fluorine, chlorine, C_1 - C_4 -alkyl or fluorine-or chlorine-substituted C_1 - C_4 -alkyl, or represent phenyl or phenyl- C_1 - C_4 -alkyl, each of which is optionally mono- to trisubstituted by radicals from the list W^4 , represent - OR^{22} or - $NR^{23}R^{24}$ or together represent - $(CH_2)_5$ -, - $(CH_2)_6$ - or - $(CH_2)_2$ -O- $(CH_2)_2$ -, and

W⁴ represents fluorine, chlorine, bromine, cyano, nitro, C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy, respectively fluorine- or chlorine-substituted C_1 - C_4 -alkyl or C_1 - C_4 -alkoxy, di- C_1 - C_4 -alkylamino, C_1 - C_4 -alkoxycarbonyl, di- C_1 - C_6 -alkylaminocarbonyl or -S(O)₀R⁶.

4. Compounds of the formula (I) according to Claim 1 in which

n represents 1 or 2,

Ar¹ represents the radical

$$R^2$$
 R^1

20 Ar² represents the radical

$$\mathbb{R}^{5}$$

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- R¹ represents fluorine, chlorine, bromine, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, methoxy, ethoxy, n-propoxy, isopropoxy, n-butoxy, isobutoxy, sec-butoxy, tert-butoxy,
- R² and R³ independently of one another each represent hydrogen, fluorine, chlorine, bromine, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, methoxy, ethoxy, n-propoxy, isopropoxy, n-butoxy, isobutoxy, sec-butoxy, tert-butoxy,
- R⁴ represents a substituent in meta- or paraposition from the group consisting of fluorine, chlorine, bromine, iodine, cyano, -CO-NR¹⁰R¹¹, tetrahydropyranyl or one of the groupings below

(l)
$$-X-A$$

$$(m-a) \qquad \qquad \qquad \qquad \qquad Z-D$$

$$(n) \qquad -Y-E$$

- R⁵ represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl, methoxy, ethoxy, methylthio, ethylthio, trifluoromethyl, difluoromethoxy, trifluoromethoxy or trifluoromethylthio,
- o represents 0 or 2,
- R^6 represents methyl, ethyl, n-propyl, isopropyl, difluoromethyl or trifluoromethyl,
- R¹⁰ and R¹¹ independently of one another each represent hydrogen, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl or represent phenyl or benzyl, each of which is optionally monosubstituted by a radical from the list W¹,
- 25 represents a direct bond, oxygen, sulphur, carbonyl, $-CH_2$ -, $-(CH_2)_2$ -, -CH=CH- (E or Z), $-C\equiv C$ -, $-CH_2O$ -, $-(CH_2)_2O$ -,

-CH(CH₃)O-, -OCH₂-, -O(CH₂)₂-, -SCH₂-, -S(CH₂)₂-, -SCH(CH₃)-, C₁-C₄-alkylenedioxy, in particular -OCH₂O-, -O(CH₂)₂O- or -OCH(CH₃)O-,

A represents phenyl which is optionally mono- or disubstituted by radicals from the list W¹ or represents furyl, benzofuryl, thienyl, benzothienyl, oxazolyl, benzoxazolyl, thiazolyl, benzthiazolyl, pyrrolyl, pyridyl, pyrimidyl, 1,3,5-triazinyl, quinolinyl, isoquinolinyl, indolyl, purinyl, benzodioxolyl, indanyl, benzodioxanyl or chromanyl, each of which is optionally mono- or disubstituted by radicals from the list W².

Z represents oxygen or sulphur,

D

represents hydrogen, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, the isomeric pentyls, the isomeric hexyls, n-heptyl, n-octyl, n-isooctyl, n-nonyl, n-decyl, n-undecyl, n-dodecyl, n-tridecyl, n-tetradecyl, n-pentadecyl, n-hexadecyl, 2-propenyl, butenyl, pentenyl, hexenyl, propargyl, butinyl, pentinyl, $-\mathsf{CF}_3, -\mathsf{CHF}_2, -\mathsf{CCIF}_2, -\mathsf{CF}_2\mathsf{CHFCI}, -\mathsf{CF}_2\mathsf{CH}_2\mathsf{F}, -\mathsf{CF}_2\mathsf{CHF}_2,$ $-\mathsf{CF}_2\mathsf{CCI}_3, -\mathsf{CH}_2\mathsf{CF}_3, -\mathsf{CF}_2\mathsf{CHFCF}_3, -\mathsf{CH}_2\mathsf{CF}_2\mathsf{CHF}_2, -\mathsf{CH}_2\mathsf{CF}_2\mathsf{CF}_3,$ represents cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl or cyclohexylmethyl, each of which is optionally mono- to trisubstituted by fluorine, chlorine, bromine, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, ethenyl, 1-propenyl, 2,2-dimethylethenyl, -CH=CCl₂, phenyl, styryl, respectively fluorine-, chlorine- or bromine-substituted phenyl or 4-chlorostyryl, represents respectively optionally fluorine-, chlorine-, methyl-, ethyl-, n-propyl-, isopropyl-, n-butyl-, isobutyl-, sec-butyl- or tertbutyl-substituted cyclopentenyl, cyclohexenyl, cyclohexenylmethyl or cyclopentenylmethyl, represents benzyl, phenethyl, naphthylmethyl, tetrahydronaphthylmethyl, furylmethyl, thienylmethyl, pyrrolylmethyl, oxazolylmethyl, isoxazolylmethyl, thiazolylmethyl or pyridylmethyl, each of which is optionally mono- or disubstituted by nitro, fluorine, chlorine, bromine, methyl, ethyl, n-propyl,

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isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, methoxy, ethoxy, n-propoxy, isopropoxy, n-butoxy, isobutoxy, sec-butoxy, tert-butoxy, trifluoromethyl, trifluoromethoxy, difluoromethoxy or chlorodifluoromethoxy, represents -CO-R¹², -CO-NR¹³R¹⁴ or the grouping

$$-(CH_2)_p-(CR^{15}R^{16})_q-(CH_2)_r-G$$
 or

Z and D together represent phenoxymethyl which is optionally mono- or disubstituted by nitro, fluorine, chlorine, bromine, methyl, ethyl, n-propyl, isopropyl, methoxy, ethoxy, n-propoxy, isopropoxy, trifluoromethyl, trifluoromethoxy, difluoromethoxy or chlorodifluoromethoxy,

Y represents a direct bond, oxygen, sulphur, carbonyl, $-CH_2$ -, $-(CH_2)_2$ -, -CH=CH- (E or Z), $-C\equiv C$ -, $-CH_2O$ -, $-(CH_2)_2O$ -, $-CH(CH_3)O$ -, $-OCH_2$ -, $-O(CH_2)_2$ -, $-SCH_2$ -, $-S(CH_2)_2$ -, $-SCII(CH_3)$ -, $-C_1$ -C₄-alkylenedioxy, in particular $-OCH_2O$ - or $-O(CH_2)_2O$ - or represents p-phenylene which is optionally monosubstituted by a radical from the list W¹,

represents hydrogen, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, the isomeric pentyls, the isomeric hexyls, n-heptyl, n-octyl, n-isooctyl, n-nonyl, n-decyl, n-undecyl, n-dodecyl, n-tridecyl, n-tetradecyl, n-pentadecyl, n-hexadecyl, 2-propenyl, butenyl, pentenyl, hexenyl, propargyl, butinyl, pentinyl, -CF₃, -CHF₂, -CCIF₂, -CF₂CHFCl, -CF₂CH₂F, -CF₂CHF₂, $-\mathsf{CF}_2\mathsf{CCI}_3, -\mathsf{CH}_2\mathsf{CF}_3, -\mathsf{CF}_2\mathsf{CHFCF}_3, -\mathsf{CH}_2\mathsf{CF}_2\mathsf{CHF}_2, -\mathsf{CH}_2\mathsf{CF}_2\mathsf{CF}_3,$ represents cyclopropyl, cyclobutyl, cyclopentyl or cyclohexyl, each of which is optionally mono- to trisubstituted by fluorine, chlorine, bromine, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, ethenyl, 1-propenyl, 2,2-dimethylethenyl, -CH=CCl2, phenyl, styryl, respectively fluorine-, chlorine- or bromine-substituted phenyl or by 4-chlorostyryl, represents respectively optionally fluorine-, chlorine-, methyl-, ethyl-, n-propyl-, isopropyl-, n-butyl-, isobutyl-, sec-butyl- or tert-butylsubstituted cyclopentenyl or cyclohexenyl, represents phenyl which

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is optionally mono- or disubstituted by radicals from the list W^1 , represents furyl, thienyl, pyrrolyl, oxazolyl, isoxazolyl, thiazolyl or pyridyl, each of which is optionally mono- or disubstituted by radicals from the list W^2 , or represents the grouping

$$-(CH_2)_p-(CR^{15}R^{16})_q-(CH_2)_r-G,$$

- R¹² represents methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, methoxy, ethoxy, n-propoxy, isopropoxy, n-butoxy, isobutoxy, sec-butoxy, tert-butoxy, cyclopropyl, cyclohexyl, cyclohexyloxy, cyclohexylmethyloxy, phenyl, 2-chlorophenyl, 3-chlorophenyl, 2,6-difluorophenyl, 2,4-dichlorophenyl, 3,4-dichlorophenyl, 2-trifluoromethoxyphenyl or 4-trifluoromethoxyphenyl,
- R¹³ represents hydrogen,
- R¹⁴ represents methyl, ethyl or represents phenyl which is optionally monosubstituted by chlorine,
- p, q and r independently of one another each represent 0, 1, 2 or 3, their sum being smaller than 4,
- R¹⁵ and R¹⁶ independently of one another each represent hydrogen, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl,
- G represents cyano, represents 5,6-dihydrodioxazin-2-yl, 3-pyridyl, 3-furyl, 3-thienyl, 2-thiazolyl, 5-thiazolyl, 2-dioxolanyl, 1,3-dioxan-2-yl, 2-dithiolanyl, 1,3-dithian-2-yl or 1,3-thioxan-2-yl, each of which is optionally mono- to trisubstituted by fluorine, chlorine, bromine, methyl, ethyl, n-propyl, isopropyl or trifluoromethyl and, at the attachment point, optionally by the radical R¹⁷, or represents one of the groupings below:
 - (a) $-CO-R^{17}$
 - (b) $-CO-OR^{18}$
 - (c) $-CO NR^{19}R^{20}$

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(d)
$$-CS-NR^{19}R^{20}$$

(e) $-CS-NR^{21}R^{20}$

(f)
$$-C \sim OR^{22}$$
 R^{17}

(g)
$$-C \sim SR^{22}$$

(h)
$$R^{23}$$
 $N - R^{24}$
 R^{24}

(i)
$$-\frac{N}{R}^{24}$$
 R^{24}

represents hydrogen, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, the isomeric pentyls, the isomeric hexyls, -CF₃, -CHF₂, -CClF₂, -CF₂CHFCl, -CF₂CH₂F, -CF₂CHF₂, -CF₂CCl₃, -CH₂CF₃, C₃-C₆-alkenyl, C₃-C₆-alkenyl which is monoto trisubstituted by fluorine or chlorine, represents cyclopropyl, cyclopentyl or cyclohexyl, each of which is optionally mono- or disubstituted by fluorine, chlorine, methyl, ethyl, n-propyl, isopropyl, -CF₃, -CHF₂, -CClF₂, -CF₂CHFCl, -CF₂CH₂F, -CF₂CHF₂, -CF₂CCl₃ or -CH₂CF₃, or represents phenyl which is optionally mono- or disubstituted by methylcarbonylamino, ethylcarbonylamino, methylcarbonyl-methylamino and/or radicals from the list W³,

R¹⁸ represents hydrogen, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, -CH₂CF₃, allyl, represents cyclopropyl, cyclopentyl, cyclohexyl, cyclopropylmethyl, cyclopentylmethyl, cyclohexylmethyl, cyclopropylethyl, cyclopentylethyl or cyclohexylethyl, each of which is optionally mono- or disubstituted by fluorine, chlorine, methyl, ethyl, n-propyl, isopropyl, -CF₃, -CHF₂, -CClF₂, -CF₂CHFCl, -CF₂CH₂F, -CF₂CHF₂, -CF₂CCl₃ or -CH₂CF₃, or represents benzyl or

radicals from the list W³,

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R¹⁹ and R²⁰ independently of one another each represent hydrogen, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, -CH₂CF₃, methoxy, ethoxy, allyl, represent cyclopropyl, cyclopentyl, cyclohexyl, cyclopropylmethyl, cyclopentylmethyl or cyclohexylmethyl, each of which is optionally mono- or disubstituted by fluorine, chlorine, methyl, ethyl, n-propyl, isopropyl

phenethyl, each of which is optionally mono- or disubstituted by

which is optionally mono- or disubstituted by radicals from the list W³, represent -OR¹⁸ or -NR¹⁷R¹⁸,

or trifluoromethyl, represent phenyl, benzyl or phenethyl, each of

- R^{21} represents -OR¹⁸, -NR¹⁷R¹⁸ or -N(R¹⁷)-COOR¹⁸,
- R^{22} , R^{23} and R^{24} independently of one another each represent methyl, ethyl, n-propyl or isopropyl,
- represents hydrogen, fluorine, chlorine, bromine, cyano, formyl, nitro, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, methoxy, ethoxy, n-propoxy, isopropoxy, n-butoxy, isobutoxy, sec-butoxy, tert-butoxy, -CF₃, -CHF₂, -CClF₂, -CF₂CHFCl, -CF₂CH₂F, -CF₂CHF₂, -CF₂CCl₃, -CH₂CF₃, -CF₂CHFCF₃, -CH₂CF₂CHF₂, -CH₂CF₂CF₃, trifluoromethoxy, difluoromethoxy, chlorodifluoromethoxy, acetyl, propionyl, butyryl, isobutyryl, methoxycarbonyl, ethoxycarbonyl, n-propoxycarbonyl, isopropoxycarbonyl, n-butoxycarbonyl, isobutoxycarbonyl, secbutoxycarbonyl, tert-butoxycarbonyl or -S(O)_oR⁶,
- 25 W² represents fluorine, chlorine, bromine, cyano, methyl, ethyl, n-propyl, isopropyl, trifluoromethyl, trifluoromethoxy, difluoromethoxy, chlorodifluoromethoxy, acetyl, trifluoromethylthio, -CH=N-OCH₃, -CH=N-OC₂H₅, -CH=N-OC₃H₇, -C(CH₃)=N-OCH₃, -C(CH₃)=N-OC₂H₅, -C(CH₃)=N-OC₃H₇, -C(C₂H₅)=N-OCH₃, -C(C₂H₅)=N-OC₂H₅ or -C(C₂H₅)=N-OC₃H₇, -C(C₂H₅)=N-OCH₃,

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W³ represents fluorine, chlorine, cyano, nitro, methyl, ethyl, methoxy, ethoxy, methylthio, trifluoromethyl, trifluoromethoxy, trifluoromethylthio, dimethylamino, diethylamino, -COOR²⁵ or -CONR²⁶R²⁷,

R²⁵ represents hydrogen, methyl, ethyl, n-propyl, isopropyl, tert-butyl, -CH₂CF₃, represents cyclopropyl, cyclopentyl or cyclohexyl, each of which is optionally mono- or disubstituted by fluorine, chlorine, methyl, ethyl, n-propyl, isopropyl or -CF₃, or represents phenyl which is optionally mono- or disubstituted by radicals from the list W⁴,

R²⁶ and R²⁷ independently of one another each represent hydrogen, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, -CH₂CF₃, methoxy, ethoxy, allyl, represent cyclopropyl, cyclopentyl, cyclohexyl, cyclopropylmethyl, cyclopentylmethyl or cyclohexylmethyl, each of which is optionally mono- or disubstituted by fluorine or chlorine, represent phenyl, benzyl or phenethyl, each of which is optionally mono- or disubstituted by radicals from the list W⁴, represent -OR²² or -NR²³R²⁴, and

W⁴ represents fluorine, chlorine, bromine, cyano, nitro, methyl, ethyl, tert-butyl, methoxy, ethoxy, methylthio, trifluoromethyl, trifluoromethoxy or trifluoromethylthio.

5 Compounds of the formula (I-a)

$$R^{2}$$
 R^{1}
 $(I-a)$,

in which

 R^1 , R^2 , R^3 , R^5 and n are each as defined in Claim 1,

R⁴ represents phenyl which is mono- or disubstituted by radicals from the list W¹, or represents one of the following groupings

- 5 B represents p-phenylene which is optionally monosubstituted by radicals from the list W¹.
 - Y represents a direct bond or represents p-phenylene which is optionally mono- or disubstituted by radicals from the list W¹, and
 - D and E each have the very particularly preferred meanings mentioned in Claim 4 where
 - G is cyano or one of the groupings below

(a)
$$-CO-R^{17}$$

(e) $-C=N-R^{21}$
 R^{17}

where

R¹⁷ and R²¹ are each as defined in Claim 1 and

W¹ is as defined in Claim 1.

- 6. Process for preparing compounds of the formula (I) according to Claim 1, characterized in that
 - A) compounds of the formula (1)

$$Ar^{1} \xrightarrow{N} Ar^{2} \qquad (1)$$

in which

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Ar¹, Ar² and n are each as defined in Claim 1

are obtained by cyclocondensing compounds of the formula (II)

$$Ar^{1} O NH_{2} (II)$$

$$(CH_{2})_{n} Ar^{2}$$

in which

 Ar^{1} , Ar^{2} and n are each as defined above,

or preferably acidic salts thereof, optionally in the presence of an acid binder,

or

B) compounds of the formula (III)

$$H_3C$$
 $\rightarrow SO_2$ $\rightarrow CCH_2)_0$ (III),

in which

Ar² and n are each as defined above

are reacted with aryl Grignard compounds of the formula (IV)

in which

Ar¹ is as defined above and

Hal represents chlorine, bromine or iodine,

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in the presence of a diluent, or

C) compounds of the formula (I-b)

$$R^{3}$$
 R^{1}
 R^{4-1}
 R^{5-1}
 R^{5-1}

in which

 R^1 , R^2 , R^3 , n and m are each as defined above,

R⁴⁻¹ represents A or one of the groupings below

$$(m)$$
 -B-Z-D

$$(n-a) \qquad \qquad \bigvee_{W^1} W^1$$

where

A, B, D, E, W1 and Z are each as defined above and

R⁵⁻¹ represents hydrogen, fluorine, cyano, nitro, alkyl, alkoxy, halogenoalkyl, halogenoalkoxy, alkoxyalkoxy or -SR⁶ where

R⁶ is as defined above

are obtained by coupling compounds of the formula (V)

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in which

 R^1 , R^2 , R^3 , $R^{5\text{--}1}$, n and m are each as defined above and

X¹ represents bromine, iodine or -OSO₂CF₃

with boronic acids of the formula (VI)

$$R^{4-1}$$
-B(OH)₂ (VI)

in which

R⁴⁻¹ is as defined above,

in the presence of a catalyst and in the presence of an acid binder and in the presence of a solvent,

D) compounds of the formula (I-c)

$$R^{3}$$

$$R^{1}$$

$$(I-c),$$

$$R^{5}$$

$$R^{5}$$

in which

 R^1 , R^2 , R^3 , R^5 , n and m are each as defined above,

R⁴⁻² represents one of the groupings below

10

15

$$(m-b)$$
 -B-Z-D¹
 $(n-b)$ -Y¹-E¹

in which

B and Z are as defined above,

Y¹ represents oxygen or sulphur and

D¹ and E¹ each represent the grouping

$$-(CH_2)_p - (CR^{15}R^{16})_q - (CH_2)_f - G$$

in which

R¹⁶, R¹⁶, G, p, q and r are each as defined above

are obtained by condensing compounds of the formula (I-d)

$$R^{2}$$
 R^{1}
 R^{4-3}
 R^{4-3}
 R^{5}
 R^{5}

in which

 R^1 , R^2 , R^3 , R^5 , n and m are each as defined above and

R⁴⁻³ represents one of the groupings below

in which

B, Y¹ and Z are each as defined above

15

with compounds of the formula (VII)

$$Ab-(CH_2)_p-(CR^{15}R^{16})_q-(CH_2)_r-G$$
 (VII)

in which

R¹⁵, R¹⁶, G, p, q and r are each as defined above and

Ab represents a leaving group,

or

E) compounds of the formula (I-e)

$$R^{2}$$

$$R^{1}$$

$$R^{4-4}$$

$$R^{5}$$

$$R^{5}$$

$$R^{5}$$

in which

10 R¹, R², R³, R⁵, n and m are each as defined above and

R⁴⁻⁴ represents a grouping from the description of the compounds of the formula (I) according to the invention containing the radical G where

G represents one of the abovementioned groupings (e) to (k)

are obtained by customary and known derivatization of the corresponding keto derivatives, carboxylic acid derivatives or nitriles, ie. compounds of the formula (I) in which G represents cyano or one of the groupings (a) to (d)

20 7. Compounds of the formula (VIII)

$$Ar^{1} \underbrace{\bigcap_{(CH_{2})_{n}} \bigwedge_{H}^{Ar^{2}} \bigcap_{OC(CH_{3})_{3}}^{O}}_{OC(CH_{3})_{3}}$$
 (VIII)

in which

Ar¹, Ar² and n are each as defined in Claim 1.

8. Compounds of the formula (XVIII)

$$Ar^1$$
 $(CH_2)_n$
 Ar^2
 $(XVIII)_n$

in which

Ar¹, Ar² and n are each as defined in Claim 1.

- 9. Pesticides, characterized by a content of at least one compound of the formula (I) according to Claim 1.
- 10. Use of compounds of the formula (I) according to Claim 1 for controlling pests.
 - 11 Method for controlling pests characterized in that compounds of the formula (I) according to Claim 1 are allowed to act on pests and/or their habitat.
- 15 Process for preparing pesticides, characterized in that compounds of the formula (I) according to Claim 1 are mixed with extenders and/or surface-active agents.
 - 13. Use of compounds of the formula (I) according to Claim 1 for preparing pesticides.